In the claims:

Please amend the claims as follows:

1. (Previously Presented)   A method for quantitatively assessing a peripheral vascular function in a limb of a patient, the method comprising:

(a) measuring a peripheral pulse volume per length PV in the limb of the patient;

(b) measuring a blood pressure of the patient; and

(c) calculating a quantity that is a mathematical function of the peripheral vascular function in the limb, using the peripheral pulse volume PV measured in step (a) and the blood pressure measured in step (b).

2. (Original) The method of claim 1, wherein step (b) comprises:

(i) measuring a diastolic blood pressure DBP of the patient;

(ii) measuring a systolic blood pressure SBP of the patient; and

(iii) calculating a pulse pressure PP of the patient as $PP = SBP - DBP$.

3. (Original) The method of claim 2, further comprising measuring a heart rate HR of the patient, and wherein step (c) comprises calculating the quantity also using the heart rate HR.

4. (Original) The method of claim 3, wherein step (c) comprises calculating a pulsatile flow PF as $PF = PV \times HR$.

5. (Original) The method of claim 4, wherein step (c) further comprises calculating a vascular resistance R as PP/PF.

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6. (Original) The method of claim 4, wherein:

step (b) further comprises calculating a mean blood pressure MBP; and

step (c) further comprises calculating a total flow TF as $TF = PF \times MBP/PP$.

7. (Original) The method of claim 6, wherein step (c) further comprises calculating a vascular resistance R as $R = MBP/TF$.

8. (Original) The method of claim 2, wherein step (c) comprises calculating a vascular compliance C as $C = PV/PP$.

9. (Original) The method of claim 1, further comprising controlling a display to display the quantity calculated in step (c).

10. (Original) The method of claim 1, further comprising controlling a storage device to store the quantity calculated in step (c) for later review.

11. (Original) The method of claim 1, further comprising transmitting the quantity calculated in step (c) over a communication link to a remote location for review.

12. (Original) The method of claim 1, wherein steps (a), (b) and (c) are performed using an integrated device.

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13. (Original) The method of claim 1, wherein:

step (a) is performed using a pulse volume meter;

step (b) is performed using a blood pressure monitor which is provided separately from the pulse volume meter; and

step (c) is performed using a computing device which is provided separately from the pulse volume meter and the blood pressure monitor.

14. (Original) The method of claim 13, wherein the peripheral pulse volume and the blood pressure are input automatically into the computing device.

15. (Original) The method of claim 13, wherein the peripheral pulse volume and the blood pressure are input manually into the computing device.

16. (Previously Presented) A system for quantitatively assessing a peripheral vascular function in a limb of a patient, the system comprising:

a pulse volume meter for measuring a peripheral pulse volume per length PV in the limb of the patient;

a blood pressure monitor for measuring a blood pressure of the patient; and

a computing device for receiving the peripheral pulse volume and the blood pressure and for calculating a quantity that is a mathematical function of the peripheral vascular function in the limb, using the peripheral pulse volume and the blood pressure.

17. (Original) The system of claim 16, wherein the blood pressure monitor measures a diastolic blood pressure DBP of the patient and a systolic blood pressure SBP of the patient and calculates a pulse pressure PP of the patient as $PP = SBP - DBP$.

18. (Original) The system of claim 17, wherein the computing device also receives a heart rate HR of the patient and calculates the quantity also using the heart rate HR.

19. (Original) The system of claim 18, wherein the computing device also calculates a pulsatile flow PF as $PF = PV \times HR$.

20. (Currently Amended) The system of claim 19, wherein the computing device also ~~calcualtes~~ <u>calculates</u> a vascular resistance R as PP/PF.

21. (Original) The system of claim 19, wherein:

the blood pressure monitor calculates a mean blood pressure MBP; and

the computing device also calculates a total flow TF as $TF = PF \times MBP/PP$.

22. (Original) The system of claim 21, wherein the computing device calculates a vascular resistance R as $R = MBP/TF$.

23. (Original) The system of claim 17, wherein the computing device calculates a vascular compliance C as $C = PV/PP$.

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24. (Original)   The system of claim 16, wherein the computing device comprises a display for displaying the quantity calculated by the computing device.

25. (Original)   The system of claim 16, wherein the computing device comprises a storage device for storing the quantity calculated by the computing device.

26. (Original)   The system of claim 16, wherein the computing device comprises a communication link for transmitting the quantity calculated by the computing device over a communication link to a remote location for review.

27. (Original)   The system of claim 16, wherein the pulse volume meter, the blood pressure monitor and the computing device are comprised in an integrated device.

28. (Original)   The system of claim 16, wherein the pulse volume meter, the blood pressure monitor and the computing device are separate devices.

29. (Original)   The system of claim 28, wherein the pulse volume meter, the blood pressure monitor and the computing device are in communication with one another such that the peripheral pulse volume and the blood pressure are input automatically into the computing device.

30. (Original)   The system of claim 28, wherein the peripheral pulse volume and the blood pressure are input manually into the computing device.

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31. (Previously Presented) The method of claim 1, wherein the mathematical function is selected from the group consisting of pulsatile limb blood flow, total limb blood flow, limb vascular compliance, and limb vascular resistance.

32. (Previously Presented) The system of claim 16, wherein the mathematical function is selected from the group consisting of pulsatile limb blood flow, total limb blood flow, limb vascular compliance, and limb vascular resistance.

33. (Currently Amended) A method for quantitatively assessing a peripheral vascular function in a limb of a patient, the method comprising:

(a) measuring a peripheral pulse volume per length PV in the limb of the patient;

(b) measuring a blood pressure and a heart rate HR of the patient; and

(c) calculating a quantity representing the peripheral vascular function in the limb, using the peripheral pulse volume PV measured in step (a) and the blood pressure measured in step (b), wherein step (c) comprises calculating a pulsatile flow PF as $PF = PV \times HR$.

34. (Currently Amended) A system for quantitatively assessing a peripheral vascular function in a limb of a patient, the system comprising:

a pulse volume meter for measuring a peripheral pulse volume per length PV in the limb of the patient;

a blood pressure and heart rate monitor for measuring a blood pressure and a heart rate HR of the patient; and

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a computing device for receiving the peripheral pulse volume and the blood pressure and for calculating a quantity representing the peripheral vascular function in the limb, using the peripheral pulse volume and the blood pressure, wherein the computing device also calculates a pulsatile flow PF as $PF = PV \times HR$.